

includes all tidewater streams and other important permanent bodies of water whose natural and normal condition as the date of the admission of a State into the Union was such as to classify the same as navigable water.

**NEAP TIDES** – Tides of decreasing range occurring semimonthly as the result of the moon being in quadrature; that is, when the tidal forces of sun and moon act at right angles to each other on the waters of the earth. Tides during these periods do not rise as high or fall as low as during the rest of the month. See TIDE.

**NEW MEXICO PRINCIPAL MERIDIAN** – The principal meridian governing surveys in New Mexico and the southwestern part of Colorado; it was adopted in 1855.

**NONIUS** – A scale featuring concentric circles used in determining angles. It was named for a Portuguese mathematician and geographer, Nunez (1492-1577). Later, the nonius was replaced by the vernier scale (named for Dutch mathematician Peter Werner who, in his writings, used the name “*Pierre Vernier*”). As late as 1879, in Germany, a vernier was called a nonius.

**NONNATIVE TOWNSITES, ALASKA** – The entry of public lands in Alaska for townsite purposes, by such trustee or trustees as may be named by the Secretary of the Interior for that purpose, is authorized by section 11 of the act of March 3, 1891.

**NONRESPONSIVE BIDS** – Contract bids not conforming to the substance of the bid invitation are non responsive and may not be considered for award. The substance of the invitation includes the terms, conditions and specifications which affect price, quality, quantity and delivery terms.

**NON RIPARIAN BROKEN BOUNDARY** – A colloquial term which refers to the meander lines along a water boundary. The water is the actual (riparian) boundary and the meander line is the representative (nonriparian) boundary.

**NON RIPARIAN BROKEN BOUNDARY ADJUSTMENT** – 1) A mathematical solution for restoring or determining the position of angle points of record courses by applying a correction to each record course based proportionately upon the length of the course. 2) The method generally used to mathematically close (balance) a figure in order to determine area. 3) May be referred to as the “*Compass Rule*.” See NON RIPARIAN BROKEN BOUNDARY, BROKEN BOUNDARY ADJUSTMENT, COMPASS RULE and ADJUSTMENT\*.

**NON RIPARIAN MEANDER LINE** – Any meander line which is surveyed as a fixed boundary or is reestablished as a fixed boundary. See FIXED BOUNDARY.

**NORTHWEST ORDINANCE (1787)** – An ordinance enacted by the Congress of the Confederation to provide for government of the Old Northwest Territory (Territory northwest of the Ohio River), and for the formation and admission of new states. The provisions were reenacted on Aug. 7, 1789 following the adoption of the Constitution. See TERRITORY NORTHWEST OF THE OHIO RIVER.

**NORTHWEST TERRITORY** – See TERRITORY NORTHWEST OF THE OHIO RIVER.

**NOTCHES** – V-shaped indentations cut upon the exposed vertical edges of a stone monument where the vertical edges of the stone have been turned to the cardinal.

## O

**O** – Ohio.

**O (Land Status Records)** – Order.

**OAS** – Office of Aircraft Services.

**OCS** – Outer Continental Shelf.

**O&C (Land Status Records)** – Oregon and California (revested lands).

**OE (Land Status Records)** – Open to Entry.

**OG (Land Status Records)** – Oil and gas.

**OK** – Oklahoma.

**OKLA.** – Oklahoma.

**OP. CIT. SUPRA** – An abbreviation for opus citum supra meaning “*in the work cited above*.” Used to avoid repeating a full citation when referring to a book previously cited. Sometimes Op. Cit. See SUPRA and INFRA.

**OPER (Land Status Records)** – Operation.

**OR** – Oregon.

**ORE.** – Oregon.

**OS (Land Status Records)** – Oil Shale.

**OBITER DICTUM** – Also called “*dictum*.” That which is said in passing. Where the court, in rationalizing its position, uses language broader than is needed for disposition of the point at issue. If the court’s statement is merely illustrative or background material not required in the determination of the issues presented, it is within the category

of obiter dictum. Dictum lacks the force of an adjudication and does not fall within the doctrine of stare decisis. See STARE DECISIS and ADJUDICATION.

**OBLIQUE MERCATOR PROJECTION** – A map plotting system in which points on the ellipsoid are mathematically projected onto a cylinder oriented tangent to an oblique line at the map center; used in one of the Alaska State Plane Coordinates systems.

**OBLITERATED CORNER** – An obliterated corner is one at whose point there are no remaining traces of the monument, or its accessories, but whose location has been perpetuated, or the point for which may be recovered beyond reasonable doubt, but the acts and testimony of the interested landowners, competent surveyors, or other qualified local authorities, or witnesses, or by some acceptable record evidence.

**OCCUPY** – 1) To set a surveying instrument over a point for the purpose of making observations. 2) To take or enter upon possession of land.

**O & C EXCHANGE** – An exchange, by the Federal Government, of revested Oregon and California Railroad Co. or reconveyed Coos Bay Wagon Road lands for other lands. See O&C LANDS.

**O & C HOMESTEAD ENTRY** – An entry, not exceeding 160 acres, on revested Oregon and California Railroad Co. lands which are agricultural in character.

**O & C LANDS** – Public lands in western Oregon which were granted to the Oregon Central railroad companies (later the Oregon and California Railroad Co.) to aid in the construction of railroads, but which were later forfeited and returned to the Federal Government by Congressional revestment of title. The term “*O and C Lands*” is often used to include Coos Bay Wagon Road Lands, which were reconveyed, not revested, lands. See OREGON AND CALIFORNIA REVESTED LANDS ADMINISTRATION and COOS BAY WAGON ROAD LANDS.

**O.C.S. OFFICIAL PROTRACTION DIAGRAM** – A drawing showing approved subdivisions of the Outer Continental shelf, usually for leasing purposes.

**OFFICIAL CADASTRAL SURVEY** – The public lands are deemed to be surveyed when the survey has been accepted and the plat thereof has been filed in the appropriate land office by direction of the Bureau of Land Management. No subdivisions of the public lands may be conveyed or in any way disposed of until so identified. See ACCEPTED SURVEY.

**OFFICIAL RETURNS** – The Field Notes and Plats of an official cadastral survey accepted and approved by the proper authority.

**OFFICIAL SURVEY** – A public land survey which has the field notes approved, the plat accepted, and has been filed in the proper BLM land office after publication in the Federal Register, if necessary. See ACCEPTED SURVEY, APPROVED SURVEY and MINERAL SURVEY.

**OFF-LINE CLOSING CORNER** – A closing corner monument that was not actually located on the line that was closed upon. Such a monument controls the direction of the closing line, but is not its legal terminus.

**OFFSET** – 1) Moving over to a parallel line in order to avoid an obstacle. 2) A process in the running of a parallel of latitude by means of a straight line with measured (offset) distances to the curve.

**OMITTED LANDS** – Lands that were in place at the time of survey but are not shown on the original township plat, and which are so situated as to have been excluded from the survey by some gross discrepancy in the location of a meander line as given by the field-note record. This term is not applicable to areas where changes can be traced to erosion, accretion or changes in the water level subsequent to survey. See OMITTED LAND SURVEY.

**OMITTED LAND SURVEY** – The survey of substantial areas of lands fronting surveyed meanders of rivers or lakes, which after investigation are known to have been omitted from the original survey through gross error or fraud.

**ONE-EIGHT (1/8) CORNER** – A one-sixteenth (1/16) section corner. The designation “*1/8 corner*” was used in some of the older subdivision-of-section surveys.

**ONE THIRTYSECOND (1/32) CORNER** – A one-sixtyfourth (1/64) section corner. The designation “*1/32 corner*” was used in some of the older subdivision-of-section surveys, especially the 20 acre Indian Allotment surveys.

**OPUS CITUM SUPRA** – In the work cited above. Usually abbreviated “*op. cit. supra*” or “*op. cit.*”

**ORDINAL NUMBER** – A number designating the place (as first, second, third) occupied by an item in an ordered sequence. There are six principal meridians named ordinal numbers, beginning with the First Principal Meridian.

**ORDINANCE OF MAY 20, 1785** – The first land ordinance, it was entitled “*An Ordinance for ascertaining the mode of disposing of lands in the western territory.*” It was adopted by the Continental Congress on May 20, 1785. Under its terms the rectangular system of surveys was inaugurated. Six-mile square townships extended north from the Ohio River and were numbered south to north. Ranges were numbered east to west. Sections (called lots) were numbered from 1 to 36 from south to north in each range with number 1 in the southeast corner. Also included was the provision that, in each township, section 16 would be set aside for the maintenance of public schools. See SEVEN RANGES, THE; GEOGRAPHER’S LINE, THE.

**ORDINARY HIGH WATER** – When used in reference to tidal waters, synonymous with mean high water. When referring to inland streams and lakes it is the same as mean high-water. See HIGH-WATER MARK and MEAN HIGH WATER.

**OREGON AND CALIFORNIA REVESTED LANDS ADMINISTRATION** – A branch of the General Land Office which was charged with the administration of the O & C and Coos Bay Wagon Road Lands. See O & C LANDS and COOS BAY WAGON ROAD LANDS.

**OREGON TERRITORY CESSION** – Under the terms of the Oregon Compromise, in 1846, the territory now occupied by the States of Idaho, Oregon and Washington and parts of Montana and Wyoming was ceded to the United States by Great Britain. This cession provided the United States with more than 183 million additional acres of public lands.

**ORGANIZED MINING DISTRICT** – A section of the country usually designated by name and described or understood as being confined within certain natural boundaries, in which the precious metals (or their ores) are found in paying quantities, and which is worked therefore, under rules and regulations prescribed or agreed upon by the miners therein. See MINERAL DISTRICT and UNORGANIZED MINING DISTRICT.

**ORIGINAL ENTRY** – When application to acquire title to public lands and the applicant is permitted to proceed with earning title to the land under the governing laws and regulations. See ENTRY, FINAL ENTRY, CASH ENTRY and COMMUTED HOMESTEAD ENTRY.

**ORIGINAL PUBLIC DOMAIN ACQUISITIONS** – All the lands, regardless of whether they are still Federal ownership or not, which the Federal Government obtained by cession from the 13 Original States (1789-1802), by the Louisiana Purchase (1803), by the cession from Spain (1819), by the occupation of the Oregon Territory (1846), by the Mexican Cession (1848), by the purchase from Texas (1850), by the Gadsden Treaty (1853), and by the purchase of Alaska (1867). The drainage basin of the Red River of the North, south of the 49<sup>th</sup> parallel and west of the cessions by the 13 Original States, is a part of the original public domain. Authorities differ as to the method and to the exact date of its acquisition by the United States, some holding that it was part of the Louisiana Purchase. The area included within the present boundaries of the State of Tennessee, although included in the cessions of the 13 Original States, is usually not considered a part of the original public domain because, by the terms of its cession, the State of North Carolina passed title to only a small acreage in that area to the United States. The United States in turn ceded its unappropriated lands to the State of Tennessee. The submerged lands granted to the states under Public Law 31 (the Submerged Lands Act) have been held to be a part of the original public domain (U.S. Supreme Court decision of Mar. 15, 1954). See PUBLIC DOMAIN, PUBLIC LANDS and PUBLIC LAND STATES.

**ORIGINAL SURVEY** – A cadastral survey which creates land boundaries and marks them for the first time.

**OUT** – a measurement term used in some field notes and deeds in the early 1800's, it is the equivalent of 5 chains. Tiffin's 1815 instructions called for the use of "*a two pole chain of 50 links,*" so when the chainman was "*out*" of chaining pins he had covered a distance of 5 chains. See POLE AND OUTKEEPER.

**OUTBOUNDARES** – The township and range lines around the perimeter of a survey area, particularly the controlling lines around the perimeter of an independent survey.

**OUTER CONTINENTAL SHELF** – That portion of the continental shelf seaward of state boundaries as defined in the Submerged Lands Act (43 U.S.C.A., sec. 1301 et seq.). It is spoken of, generally, as that part of the continental shelf beyond the "*three mile limit.*" It extends from there to the continental talus, a depth of approximately 100 fathoms. See CONTINENTAL SHELF, CONTINENTAL TALUS, SUBMERGED LANDS ACT and OUTER CONTINENTAL SHELF LANDS ACT.

**OUTER CONTINENTAL SHELF LANDS ACT** – Also known as Public Law 212. An act passed during the 1<sup>st</sup> session of the 83<sup>rd</sup> Congress and signed into law Aug. 7, 1953. It provides for the jurisdiction, control and administration by the United States over the submerged lands seaward of the state's boundaries as defined in the Submerged Lands Act (Public Law 31); that is over the outer continental shelf. Senate Report 411, regarding this act, made it clear that the outer edge of the shelf is the point where the continental slope leading to the true ocean bottom begins and that this point is generally regarded as the depth of approximately 100 fathoms. At the 1958 Geneva Conference, the Geneva Convention on the Continental Shelf adopted the 100-fathom depth curve as a minimum limit and beyond that if exploitation is feasible. See CONTINENTAL SHELF, SUBMERGED LANDS ACT, CONTINENTAL TALUS and OUTER CONTINENTAL SHELF.

**OUTKEEPER** – On older style surveyor's compasses, a scale numbered 1 to 16, with a pointer that was turned by a milled knob to keep track of the "*Outs*"; 8 Outs equal 40 chains; 16 Outs equal 80 chains. See OUT.

**OUTLINES** – An obsolete term sometimes used in older manuals of surveying instruction to refer to township boundaries.

**OUT OF LIMITS** – Exceeds linear and/or angular limits as set forth in the Manual of Surveying Instructions. Also, outside rectangular limits. See RECTANGULAR LIMITS.

**OVERFLOWED LANDS** – Lands which are annually or periodically subject to natural flooding during the normal planting, growing or harvesting seasons of a region to such an extent that they are rendered wet and unfit for the cultivation of the staple crops of that region, unless artificially drained or protected. See SWAMP, SWAMP AND OVERFLOWED LANDS and SWAMP LANDS ACTS.

**OVERLAP** – Lands surveyed in conflict. A common area included in separate surveys. That portion of area which one survey extends over and covers a part of a different survey as is shown by the evidence on the ground.

**OVERGROWTH** – The growth of a tree as it heals over survey markings. See BARK SCRIBE.

## P

- Property Line.

**PA** – Pennsylvania.

**PAR (Land Status Records)** – Parcel.

**PART (Land Status Records)** – Partially.

**PAT (Land Status Records)** – Patent.

**PC** – Point of curve.

**PCC** – Point of Compound Curve.

**PCS** – Point of Curve to Spiral.

**PD (Land Status Records)** – Public Domain.

**PE** – Professional Engineer.

**PE and LS** – Professional Engineer and Land Surveyor.

**PER (Land Status Records)** – Permit.

**PET RES (Land Status Records)** – Petroleum Reserve.

**PHO (Land Status Records)** – Phosphate.

**PI** – In highway surveying, Point of Intersection of two tangents.

**PL (Land Status Records)** – Public Law.

**PLC (Land Status Records)** – Private land claim.

**PLO (Land Status Records)** – Public Land Order.

**POL** – Point on line.

**POST** – In highway surveying, Point on semi tangent.

**POT (Land Status Records)** – Potassium.

**POT** - In highway surveys, Point on Tangent.

**PPS (Land Status Records)** – Primary Place of Business.

**PR PER (Land Status Records)** – Prospecting permit.

**PRE (Land Status Records)** – Preemption.

**PRIN MER (Land Status Records)** – Principal Meridian.

**PROC (Land Status Records)** – Proclamation.

**PROJ (Land Status Records)** – Project.

**PROP (Land Status Records)** – Propose, Proposed.

**PROT WDL (Land Status Records)** – Protective Withdrawal.

**PS (Land Status Records)** – Public Sale.

**PS** - Point of Spiral (curve).

**PSC** – Point of Spiral to Curve.

**P.S.C.** – Private survey claim. Used in the specimen field notes in the General Instructions of 1855.

**PST** – Point of Spiral to Tangent.

**PU (Land Status Records)** – Public Use.

**PUR (Land Status Records)** – Purchase.

**PW RES (Land Status Records)** – Public water reserve.

**PWR PROJ (Land Status Records)** – Power Project.

**PWR S (Land Status Records)** – Power site.

**PX (Land Status Records)** – Private Exchange.

**PANELING\***.

**PARALLEL** – See STANDARD PARALLEL; STANDARD PARALLEL, AUXILIARY and PARALLEL\*.

**PARALLEL OFFSET METHOD** – A method of traversing around obstacles and maintaining a line parallel to, and offset a measured distance from, the survey line.